



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,029	12/20/2001	Manabu Haraguchi	010911	1295
23850 7590 10/11/2007 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005			EXAMINER HAUGLAND, SCOTT J	
			ART UNIT 3654	PAPER NUMBER
			MAIL DATE 10/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/926,029	HARAGUCHI, MANABU	
	Examiner	Art Unit	
	Scott Haugland	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/19/07 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of claim 8, line 7 requiring each notch to be defined by a recess disposed only in the inner surface of the wall of the shaft member appears to be inaccurate. The recesses defining the notches are in the inner and end surfaces of the wall of the shaft member, not only in the inner surface of the wall.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Pat. No. 4,684,272) in view of Thornton (U.S. Pat. No. 1,655,299) and Haraguchi et al (U.S. Pat. No. 5,819,500).

Watanabe discloses a roll of web comprising an elongated hollow wall defining a tubular shaft member 5 having concentrically spaced inside and outside surfaces, rectangular notches 5a having a limited length from an end of the shaft member, each notch being defined by a recess disposed in the inner surface of the wall of the shaft member and extending to a radial depth short of the outside surface of the shaft member.

Watanabe does not disclose a paper roll comprising thermally fusible packaging paper wound on the tubular shaft member with a folded portion of the paper being disposed on an end of the shaft member, does not disclose at least four notches in the shaft member, and does not explicitly state that the radial depth of each notch is a majority of a thickness of the wall of the shaft member.

Thornton teaches providing a spool for web comprising an elongated hollow wall defining a tubular shaft member having concentrically spaced inside and outside

Art Unit: 3654

surfaces with at least four notches a2, b2 on the inner surface of the wall that receive projections on a drive spindle.

Haraguchi et al teaches providing a thermally fusible packaging paper 20 wound in a double folded state on a tubular shaft 21 with a folded portion 20A of the paper disposed on an end of the shaft member. See Fig. 3.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Watanabe with at least four notches as taught by Thornton to reduce the minimum angle through which the spool must be rotated to align with the drive projections 16 and improve the convenience and efficiency of use. It would have been obvious to provide the spool of Watanabe with folded thermally fusible packaging paper on the tubular shaft member with a folded portion of the paper on an end of the shaft member as taught by Haraguchi et al to store and dispense such paper as needed for packaging.

It would have been obvious to make the radial depth of each notch a majority of a thickness of the wall of the shaft member to provide a secure drive connection by providing a sufficiently large radial surface for engagement by projections 16 and to minimize material use. Only a relatively thin portion between the notches and outer surface of the spool would be required to provide a smooth continuous surface for winding of the tape.

It appears that the portion of the wall of the shaft member radially outside of the recesses of the notches would inherently be more flexible than the portions of the wall between the recesses since the shaft member of Watanabe appears to be formed

entirely of the same material. In any case, it would have been obvious to form the shaft members from a single substantially uniform material for reasons of efficiency since there is nothing in the references to suggest the need to do otherwise.

With regard to claim 8, the recesses defining the notches in Watanabe are disposed only in the inner surface of the wall of the shaft member to the extent that the notches of Applicant's apparatus are.

Response to Arguments

Applicant's arguments filed 9/19/07 have been fully considered but they are not persuasive.


Applicant argues that none of the cited reference teaches that the radial depth of the recesses is a majority of the thickness of the wall of the shaft member. However, it would have been within the level of skill of an ordinary artisan to arrive at the claimed notch depth for the reasons set forth in the rejection above. Nothing in Watanabe indicates that the notches and other parts are to scale or that there is any reason why the depth of notches should no more than half the wall thickness. Thornton appears to show deeper notches. Considerations of efficient use of material and the forces to be transmitted by the faces of the notches and meshing teeth would have led an ordinary artisan to provide the shaft member with relatively deep notches in relation to the thickness of the wall.

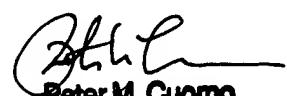
Art Unit: 3654

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


SJH
10/4/07


Peter M. Cuomo
Supervisory Patent Examiner
Technology Center 3800